

# ANNUAL REPORT FOR 2005



**Poplar and Marks Creek Bridge Crossings  
Wake County  
TIP No. R-2547**



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## **SUMMARY**

Poplar and Marks Creek Bridge Crossings are located on the Knightdale Bypass in Wake County. The sites are being monitored due to temporary fill being placed in wetlands and protected riparian buffers.

The restoration effort involved the removal of the temporary fill in wetlands and protected riparian buffers and revegetating these areas with a list of species approved by NCDWQ and USACE. No hydrologic monitoring is required for this project.

After the first year of monitoring, Poplar and Marks Creek Bridge Crossings show by visual observation that the wetlands and riparian buffers have revegetated but some additional planting needs to take place.

NCDOT recommends replanting this site and continue monitoring.

## **1.0 INTRODUCTION**

### **1.1 Project Description**

Poplar and Marks Creek Bridge Crossings are located on the Knightdale Bypass in Wake County (Figure 1).

### **1.2 Purpose**

In order for a mitigation site to be considered successful, a site must meet vegetation success criteria. This report details the vegetation monitoring in 2005 at Poplar and Marks Creek Bridge Crossings. Hydrologic monitoring was not required for these sites.

### **1.3 Project History**

September 2005



Year 1 Monitoring

## **2.0 VEGETATION: POPLAR AND MARKS CREEK BRIDGE CROSSINGS (YEAR 1 MONITORING)**

### **2.1 Success Criteria**

Success Criteria states that the areas where the temporary fill was placed must be inspected on an annual basis for 5 years or until the regulatory agencies waives the requirement in writing.

### **2.2 Description of Species**

*Quercus michauxii*, Swamp Chestnut Oak

*Fraxinus pennsylvanica*, Green Ash

*Liriodendron tulipifera*, Tulip Poplar

*Quercus phellos*, Willow Oak

*Quercus lyrata*, Overcup Oak

*Platanus occidentalis*, Sycamore

### **2.3 Results of Vegetation Monitoring**

The wetlands and riparian buffers where temporary fill was placed have revegetated in some of the areas. There are some washed out areas on Poplar and Marks Creek underneath the bridges. These areas will be repaired and replanted.

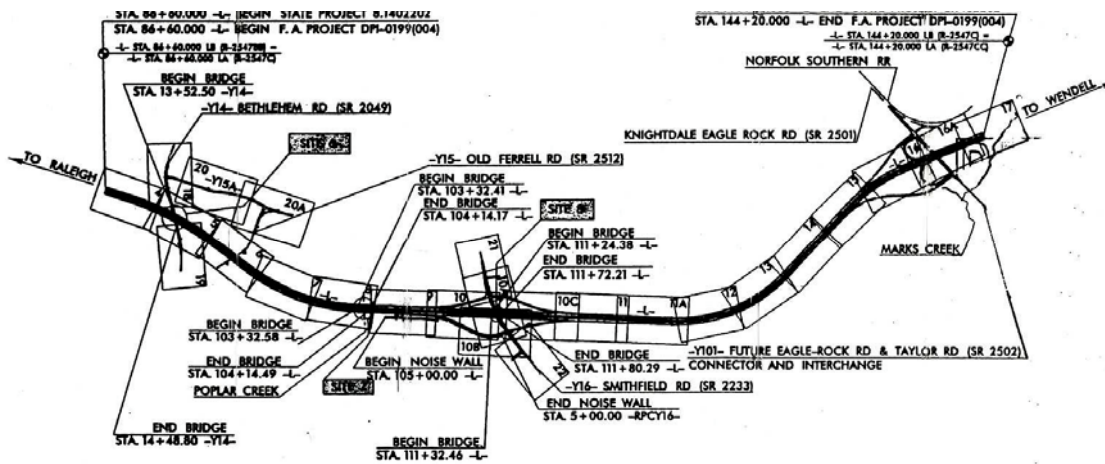
**Site Notes:** Other species noted include: woolgrass, *Sagittaria* sp., sedges, fennel, pokeberry, black willow, *Juncus* sp., cattail, and various grasses.

### **2.4 Conclusions**

By visual observation the Poplar and Marks Creek Bridge Crossings show that the wetlands and riparian buffers have revegetated in some of the areas. After the washed out areas are repaired, replanting will take place in the winter of 2006.

## **3.0 Overall Conclusions and Recommendations**

NCDOT will replant and continue monitoring Poplar and Marks Creek Bridge Crossings on R-2547.



VICINITY MAP

FIGURE 1

R-2547

WAKE COUNTY

# **APPENDIX A**

## **SITE PHOTOS**

# Poplar Creek Bridge



Photo 1



Photo 2



# Marks Creek Bridge



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

September 2005